

# **KANTHAL® FLOW HEATER 11 kW** **HEATING GASES UP TO 1100°C**

TECHNICAL SPECIFICATION

**KANTHAL®**

Part of Sandvik Group

## FLOW HEATER 11 kW BASIC VERSIONS

The Flow Heater 11 kW can be supplied in different basic versions with power connection cables included. There are additional accessories for insulation, mounting and temperature control.

### 1A. FLOW HEATER 11 KW WITHOUT NOZZLE

#### BASIC DATA

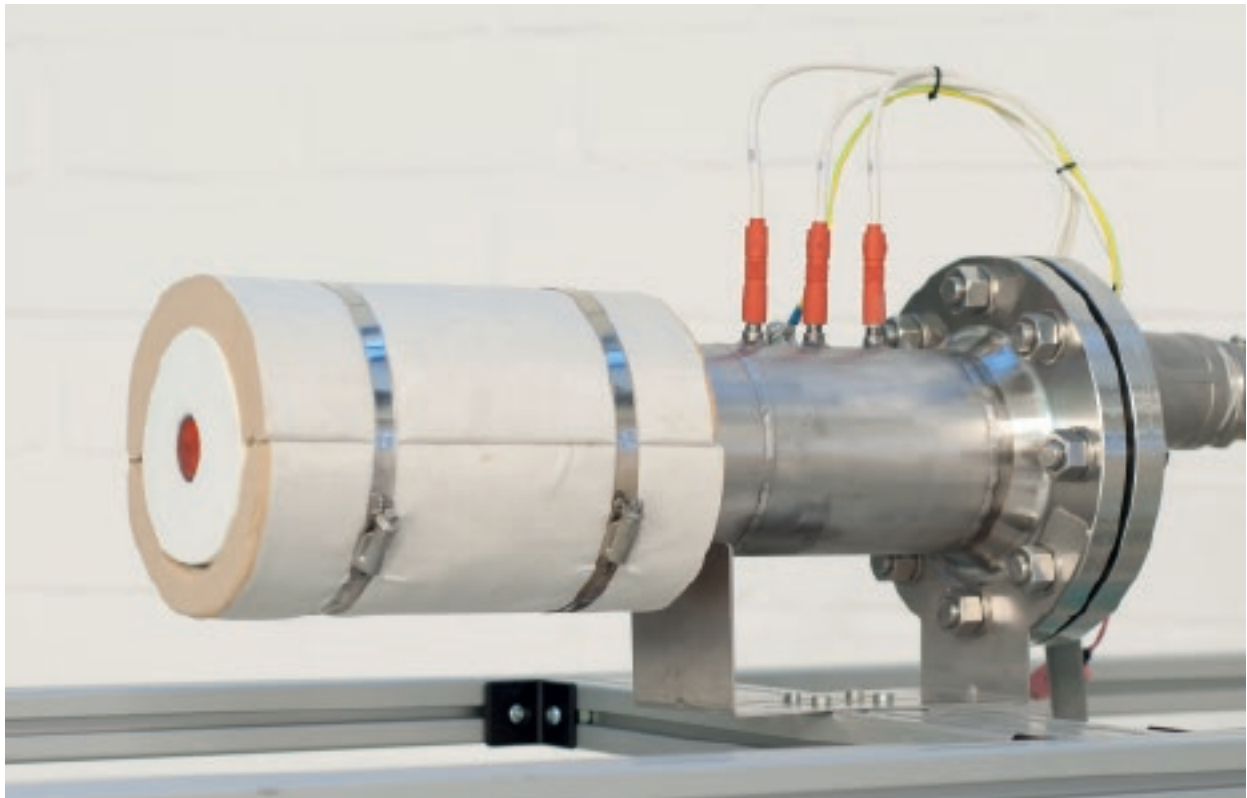
<b>Article No.</b>	DFH100202
<b>Inlet connection</b>	welding nipple DN 25 (1") outer Ø 33.7 mm in 1.4541 (321)
<b>Outlet connection</b>	4" tube outer Ø 114.3 mm in 1.4835 (253 MA)
<b>Total length</b>	526 mm
<b>Weight</b>	20.71 kg



### 1B. FLOW HEATER 11 KW WITH NOZZLE

#### BASIC DATA

<b>Article No.</b>	DFH100204
<b>Inlet connection</b>	welding nipple DN 25 (1") outer Ø 33.7 mm in 1.4541 (321)
<b>Outlet connection</b>	1" tube outer Ø 33.4 mm in 1.4835 (253 MA)
<b>Total length</b>	561 mm
<b>Weight</b>	21.76 kg



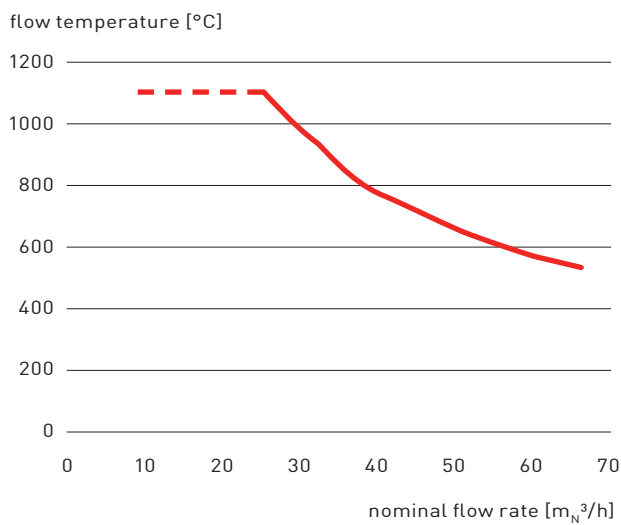
## SPECIFICATIONS

### OPERATING DATA (Valid for all basic versions fully equipped)

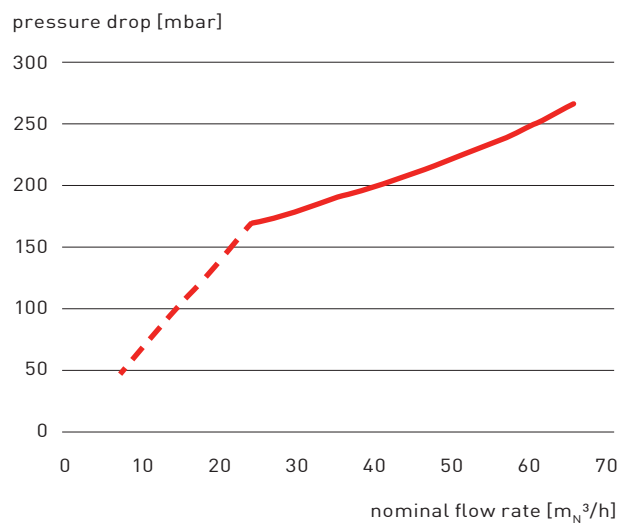
<b>Fluid</b>	air, N <sub>2</sub> , O <sub>2</sub> , CO <sub>2</sub> *	
<b>Nominal volume flow (air)</b>	8 – 66 m <sub>N</sub> <sup>3</sup> /h	4.71 – 38.85 cfm
	134 – 1100 l <sub>N</sub> /min	
<b>Mass flow (air)</b>	10.34 – 85.29 kg/h	
<b>Operating pressure</b>	< 1.5* bar absolute	< 22 PSI absolute
<b>Max. pressure drop</b>	265 mbar	3.84 PSI
<b>Inlet temperature</b>	< 100°C	< 212°F
<b>Max. outlet temperature (air)</b>	1100°C*	2012°F
<b>Ambient temperature</b>	< 40°C	< 104°F
<b>Installation</b>	horizontal	
<b>Tube material</b>	1.4835 (253 MA)	

\* for higher temperatures, higher pressure or other gas, please contact your Kanthal sales representative.

### FLOW TEMPERATURE IN CLEAN AIR



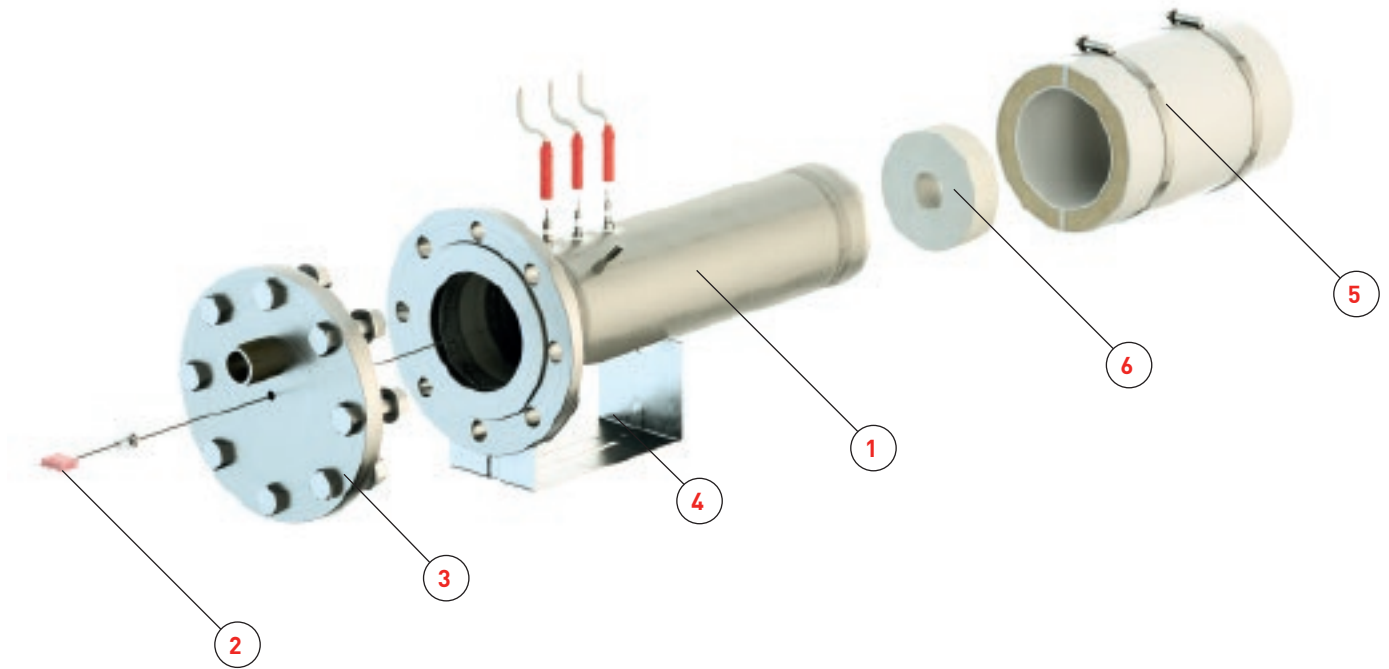
### PRESSURE DROP IN CLEAN AIR



### ELECTRICAL DATA

<b>Power</b>	11 kW
<b>Voltage</b>	400 V / 3 - phase
including 3 electrical connectors with 2.4 m cable (8 AWG) and plugs	

## ACCESSORIES



POS.	DESCRIPTION	ARTICLE NO.	WEIGHT [KG]
1	Flow Heater 11 kW Basic Version	See page 2	-
2	Internal thermocouple with ferrule fitting	DFH120002	0.03
3	Flange adaptor (incl. Thermocouple and welding nipple)	DFH120003	6.58
4	Mounting bracket	DH500401	1.06
5	Microporous insulation with clamps	DFH400006	1.11
6	Fibrothal nozzle insulation	DFH400005	0.07
7	Control Cabinet 11 kW	DFH126004	28.0

## 2. THERMOCOUPLE WITH FERRULE FITTING

### TECHNICAL DATA

<b>Article No.</b>	DFH120002
<b>Type</b>	T/C type N in Inconel sheath with plug (3 pins with ground sheath)
<b>Dimensions</b>	Ø 1.5 mm, L = 500 mm
<b>Fitting connection</b>	M8 x 1 thread with sealing



### 3. FLANGE ADAPTOR

#### TECHNICAL DATA

<b>Article No.</b>	DFH120003
<b>Flange</b>	PN 16 DN 100 (4") outer Ø 220 mm in 1.4571 (316 Ti)
<b>Inlet</b>	welding nipple DN 25 (1") outer Ø 33.7 mm in 1.4541 (321)
<b>Thermocouple</b>	T/C type N in Inconel sheath for over temperature protection inside the heater



### 4. MOUNTING BRACKET

#### TECHNICAL DATA

<b>Article No.</b>	DH500401
<b>Material</b>	1.4404 (316L)
<b>Dimensions (WxHxD)</b>	363 mm x 100 mm x 4 mm



### 5. MICROPOROUS INSULATION WITH CLAMPS

#### TECHNICAL DATA

<b>Article-No.</b>	DFH400006
<b>Material</b>	Microporous half shells
<b>Dimensions</b>	Outer Ø 164 mm, L = 250 mm
<b>Attachment</b>	Pair of clamps



### 6. FIBROTHAL NOZZLE INSULATION

#### TECHNICAL DATA

<b>Article No.</b>	DFH400005
<b>Material</b>	Fibrothal F17/LS
<b>Dimensions</b>	Outer Ø 114 mm, L = 35 mm



### 7. CONTROL CABINET 11 kW

#### TECHNICAL DATA

<b>Article No.</b>	DFH126004
<b>Control</b>	PID control
<b>Connection</b>	16 A CEE plug with 5 m cable
<b>Dimensions (WxHxD)</b>	500 mm x 500 mm x 300 mm



